



VIA HAND DELIVERY TO EXAMINER JEZIA RILEY

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 00-713-i15)

COPY

In re Application of:)
)
Chad A. Mirkin, et al.)
) Examiner: Jezia Riley
Serial No.: 09/975,059)
) Group Art Unit: 1637
Filed: October 11, 2001)
) Confirmation No. 2661
For: NANOPARTICLES HAVING)
OLIGONUCLEOTIDES ATTACHED)
THERE TO AND USES THEREFOR)

Assistant Commissioner for Patents
Washington, D.C. 20231

SIXTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

In order to comply with discretionary regulations 37 CFR §§1.97 and 1.98, attached hereto is Form PTO-1449, copies¹ of the documents listed thereon: These documents contain information which the Examiner may consider to be important in deciding whether to allow the present application to issue as a patent.

1. Merrill, et al., U.S. Patent No. 5,830,986, issued November 3, 1998.
2. Lough, et al., U.S. Patent No. 5,900,481, issued May 4, 1999.

¹To the extent that a document is listed and no copy of same is attached, then such document is not at the present time available to the undersigned or is available in the file of a parent application. If a listed document is not in the English language and an English translation is readily available, such translation is also attached; if translation is not attached it is not readily available to the undersigned. If a foreign language patent document is cited, and an English language equivalent is known to the undersigned, then such equivalent patent is also cited on the attached form along with the corresponding foreign language patent and a connecting arrow indicated therebetween; if no such English language equivalent is cited, then none is known to undersigned.

3. Goldberg, et al., U.S. Patent No. 6,203,989, issued March 20, 2001
4. Bawendi, et al., U.S. Patent No. 6,251,303, issued June 26, 2001.
5. Abbott, et al., U.S. Patent No. 6,277,489, issued August 21, 2001.
6. Bawendi, et al., U.S. Patent No. 6,306,610, issued October 23, 2001
7. Mirkin, et al, U.S. Patent No. 6,361,944, issued March 26, 2002.
8. Wagner, et al., U.S. Patent No. 6,365,418, issued April 02, 2002
9. Mirkin, et al., U.S. Patent No. 6,417,340, issued July 09, 2002
10. WO 93/25709 published 23 December 1993.
11. WO 98/04740 published 5 January 1998
12. WO 98/17317 published 30 April 1998
13. WO 99/60169 published 25 November 1999
14. WO 00/33079 published 8 June 2002
15. WO 01/00876 published 4 January 2001
16. WO 01/51665 published 19 July 2001
17. WO 01/73123 published 4 October 2001
18. WO 01/86301 published 15 November 2001
19. WO 02/04681 published 17 January 2002
20. WO 02/18643 published 7 March 2002
21. WO 02/36169 published 10 May 2002
22. WO 02/46483 published 13 June 2002
23. WO 02/46472 published 13 June 2002
24. Letsinger, R., et al., "Chemistry of Oligonucleotide-Gold Nanoparticle Conjugates," *Phosphorus, Sulfur and Silicon*, Volume 144, p. 359-362 (1999)

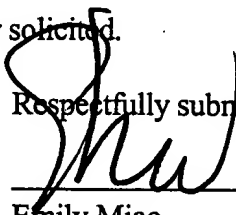
that the cited documents represent the results of a complete search, and it is anticipated that the Examiner, in the normal course of examination, will make an independent search and will determine the best prior art consistent with 37 CFR 1.104(a) and 1.106(b) and, in the course of each search, will review for relevance every document cited on the attached form even if not initialed.

Early and favorable consideration is earnestly solicited.

Dated: _____

9/6/02

Respectfully submitted,



Emily Miao

Registration No. 35,285

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(Rev. 2-32)

U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket N .

Serial No.

00-713415

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INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

Chad A. Mirkin, et al.

Filing Date:

October 11, 2001

Group:

1637

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1.	5,830,986	11/03/98	Merrill, et al.	528	332	10/28/96
	2.	5,900,481	05/04/99	Lough, et al.	536	55.3	11/06/96
	3.	6,203,989	03/20/01	Goldberg, et al.	435	6	03/25/99
	4.	6,251,303	06/26/01	Bawendi, et al.	252	301.4R	09/18/98
	5.	6,277,489	08/21/01	Abbott, et al.	428	403	12/04/98
	6.	6,306,610	10/23/01	Bawendi, et al.	435	7.1	09/17/99
	7.	6,361,944	03/26/02	Mirkin, et al.	435	6	06/25/99
	8.	6,365,418	04/02/02	Wagner, et al.	436	518	05/18/00
	9.	6,417,340	07/09/02	Mirkin, et al.	536	23.1	10/20/00

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes	No
	10.	WO 93/25709	23 December 1993	PCT				
	11.	WO 98/04740	5 February 1998	PCT				
	12.	WO 98/17317	30 April 1998	PCT				
	13.	WO 99/60169	25 November 1999	PCT				
	14.	WO 00/33079	8 June 2002	PCT				
	15.	WO 01/00876 /	4 January 2001	PCT				

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DATE CONSIDERED

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	Document Number	Date	Country	Class	Subclass	Translation Yes No
16.	WO 01/51665 ✓	19 July 2001	PCT			
17.	WO 01/73123 ✓	4 October 2001	PCT			
18.	WO 01/86301 ✓	15 November 2001	PCT			
19.	WO 02/04681 ✓	17 January 2002	PCT			
20.	WO 02/18643 ✓	7 March 2002	PCT			
21.	WO 02/36169 ✓	10 May 2002	PCT			
22.	WO 02/46483 ✓	13 June 2002	PCT			
23.	WO 02/46472 ✓	13 June 2002	PCT			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

24.	Letsinger, R., et al., "Chemistry of Oligonucleotide-Gold Nanoparticle Conjugates," <i>Phosphorus, Sulfur and Silicon</i> , Volume 144, p. 359-362 (1999)
25.	Letsinger, R., et al., "Use of a Steroid Cyclic Disulfide Anchor in Constructing Gold Nanoparticle—Oligonucleotide Conjugates," <i>Bioconjugate Chem</i> , p. 289-291 (2000) ✓

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

26.	Li Z., et al., "Multiple thiol-anchor capped DNA-gold nanoparticle conjugates," <i>Nucleic Acids Research</i> , Volume 30, p. 1558-1562 (2002) ✓
27.	Nuzzo R., et al., "Spontaneously Organized Molecular Assemblies. 3. Preparation and Properties of Solution Adsorbed Monolayers of Organic Disulfides on Gold Surfaces," <i>J. Am Chem. Soc.</i> , Volume 109, p. 2358-2368 (1987) ✓
28.	Otsuka, H., et al., "Quantitative and Reversible Lectin-Induced Association of Gold Nanoparticles Modified with α -Lactosyl- α -mercapto-poly(ethyleneglycol)," <i>J. Am Chem. Soc.</i> , Volume 123, p. 8226-8230 (2001) ✓
29.	Wuelfing, P., et al., "Nanometer Gold Clusters Protected by Surface-Bound Monolayers of Thiolated Poly(ethylene glycol) Polymer Electrolyte," <i>J. Am Chem. Soc.</i> , Volume 120, p. 12696-12697 (1998) ✓

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